

Figure 1

**Sheet 2 of 15 Sheets**

**Applicant:** Daniel Pinto et al.

**Title:** REGULATORY SEQUENCE OF THE MOUSE  
VILLIN GENE - USE IN TRANSGENESIS

**Attorney/Agent:** Nancy A. Johnson, Ph.D., Reg. No.  
47,266

**Docket No.:** 04543-004001

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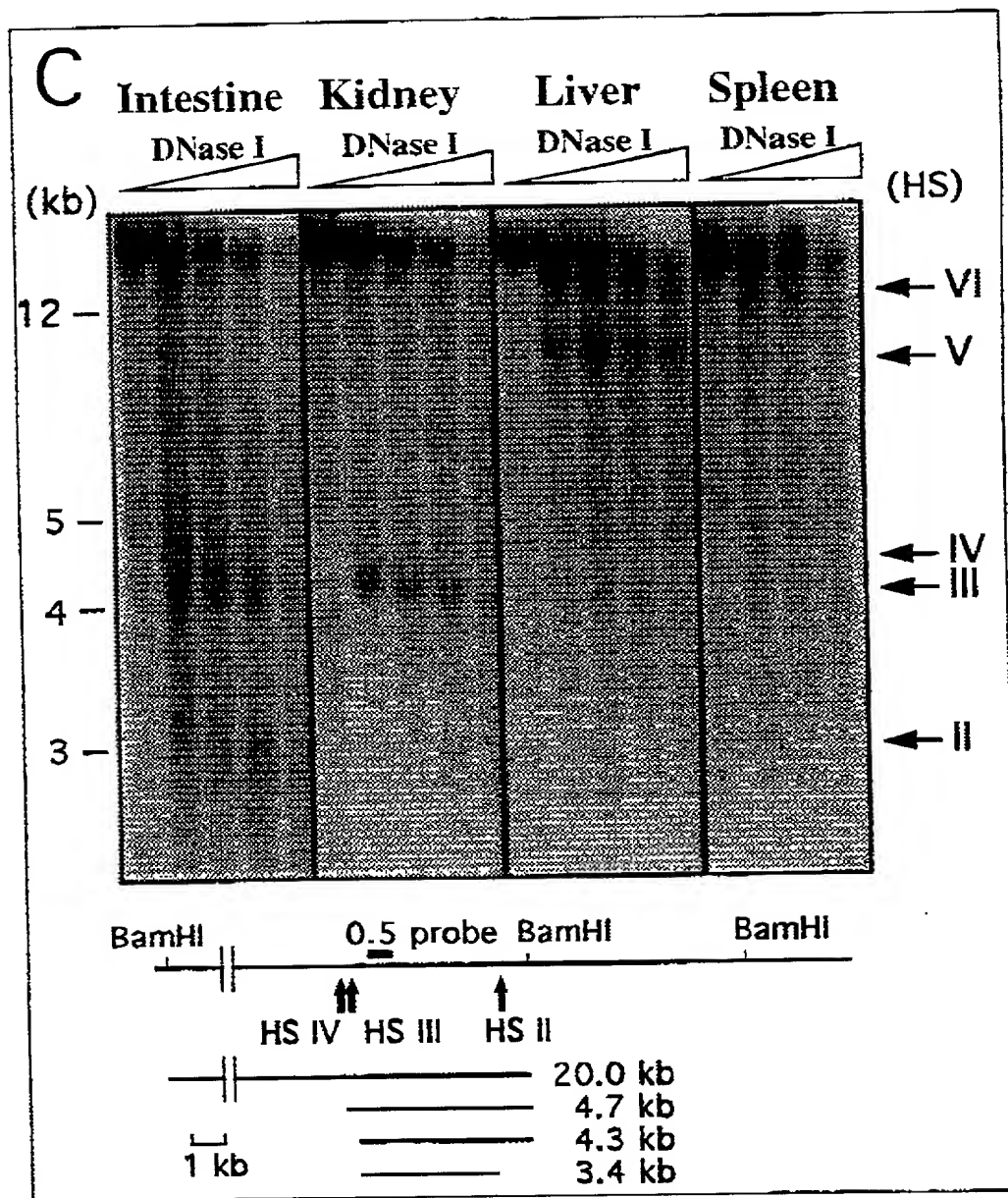


Figure 2(b)

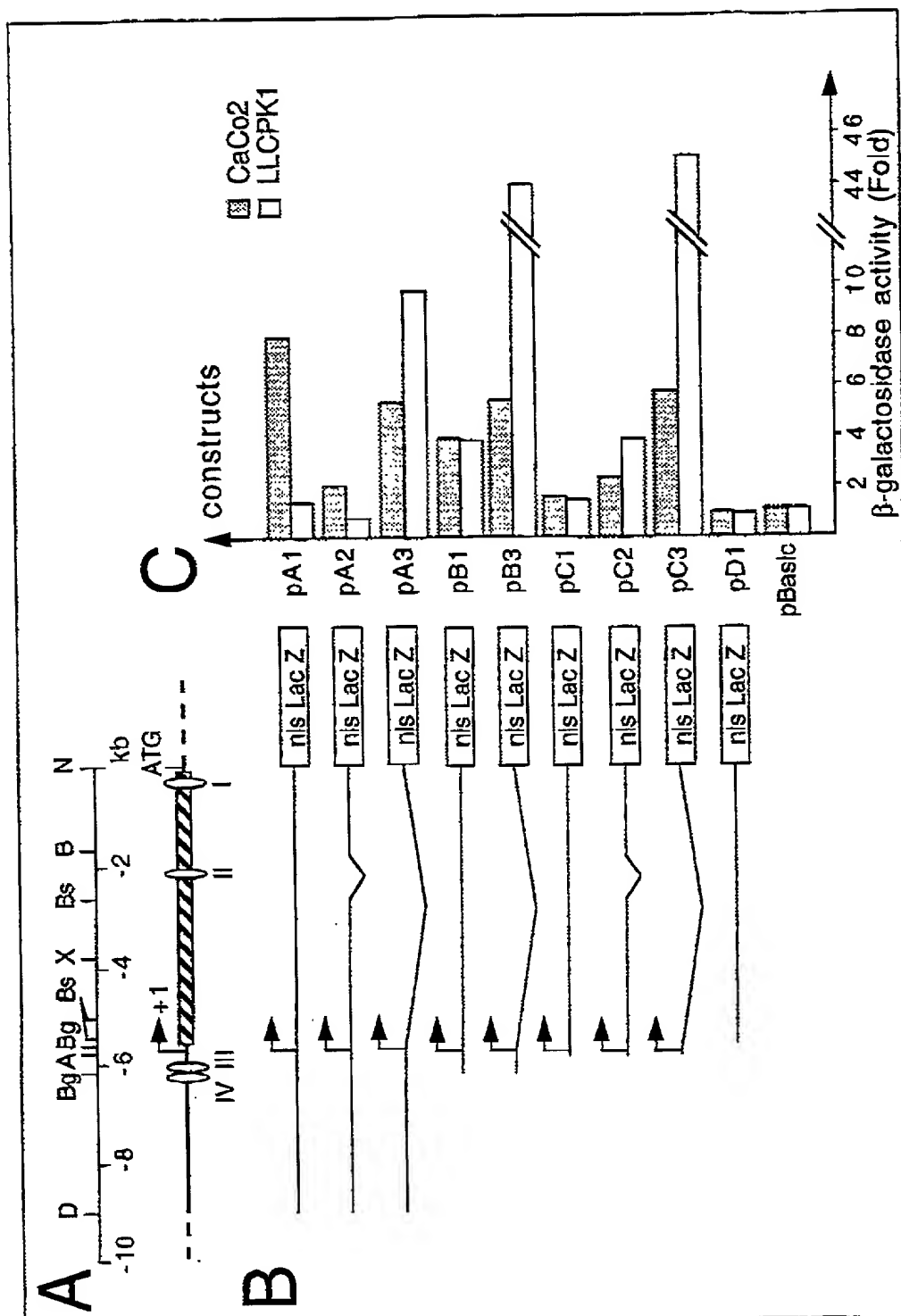


Figure 3

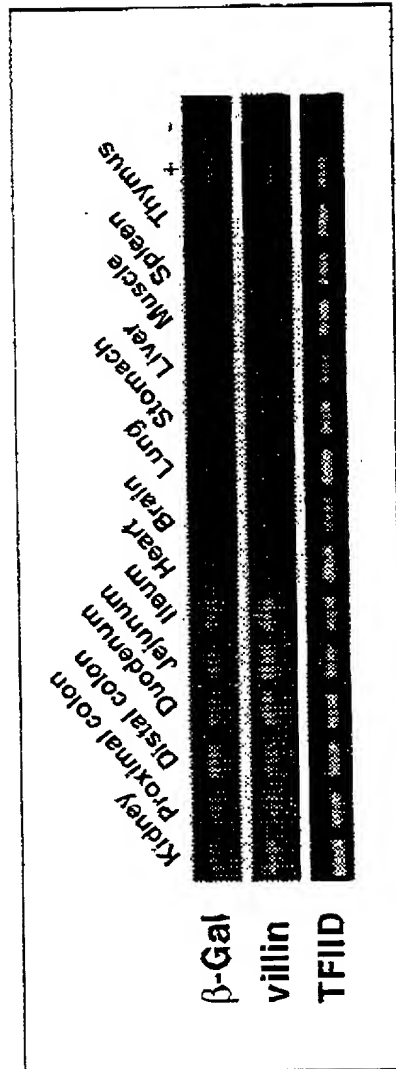


Figure 4

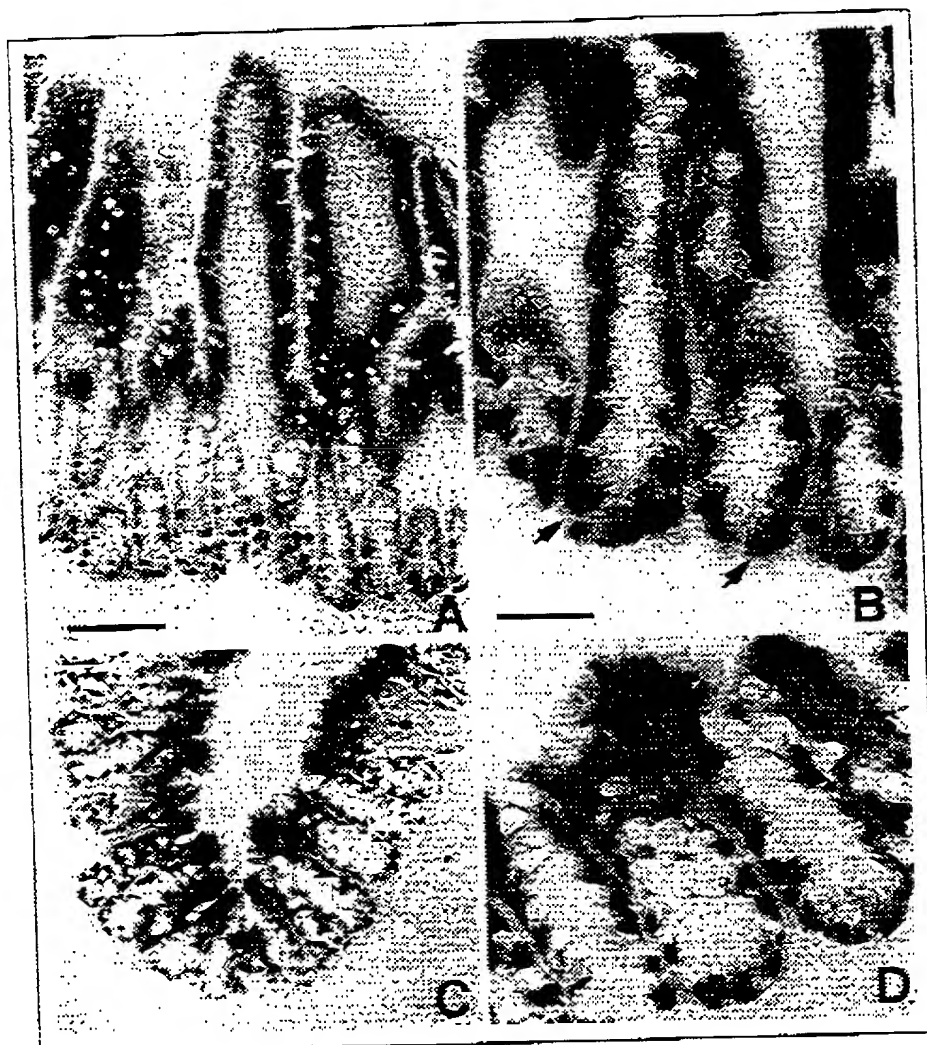


Figure 5

## Genomic sequence of the mouse villin gene regulatory sequences

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 GAGTTCGAAG TCAGCCTAGT CTGCAAAGCT AGTTCAGGA TGGCAAGGGC TACACAGAGA 300  
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 GTCCATTGAG GATGGACCAT CCTATAAGAT GATTCTCTTG ACCCAGGTAA GCTAATGTCA 420  
 TGGGGAAAGG GGATGGGACT GTCCTAGATT AAAAAGTGCT GAGGCGATGC CTATTCTCAA 480  
 TTTGATTCCA TATGAAAAGG CTGATAAGGC CCAAGAGAAG TGGAAGTGGG ACTCTGGACT 540  
 GAAGACGTGA CGGCCCTTATA AACACTGGCA CTTATAAACA CTTATAAACA CTGGCACAGG 600  
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+1

exon 1

(transcription start site)

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exon 2

# Targeting using the regulatory sequences of the mouse villin gene Data obtained by transgenesis - October 1998

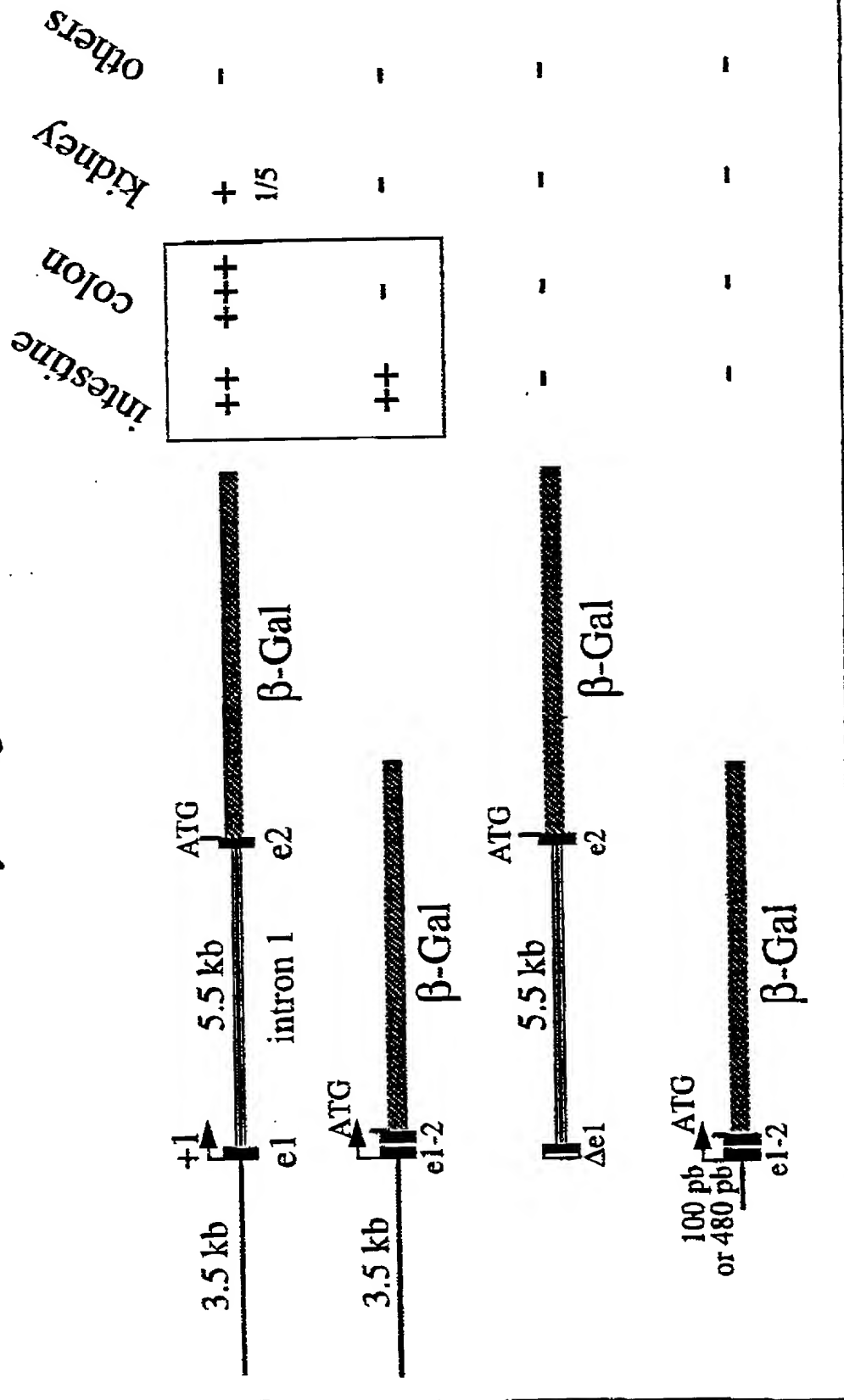


Figure 7

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### Targeting of oncogenes and tumor suppressor genes

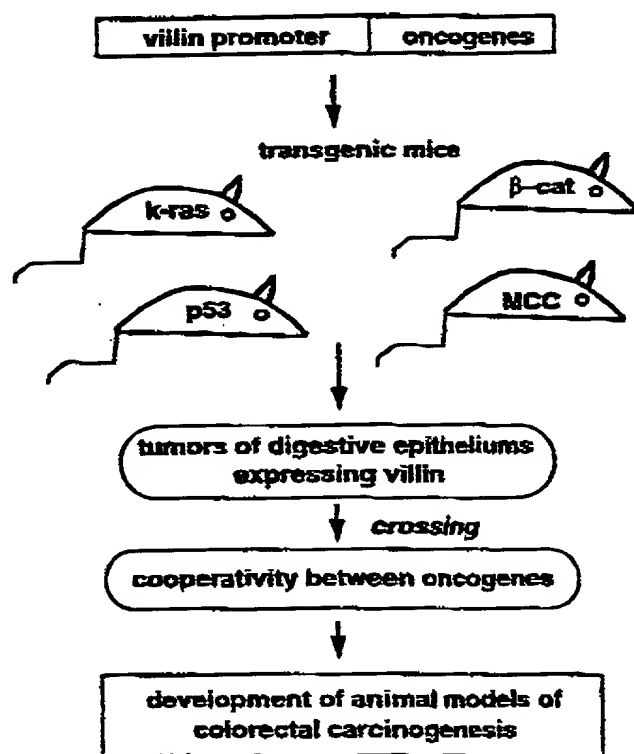


FIGURE 8A

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### Targeting of immortalizing gene

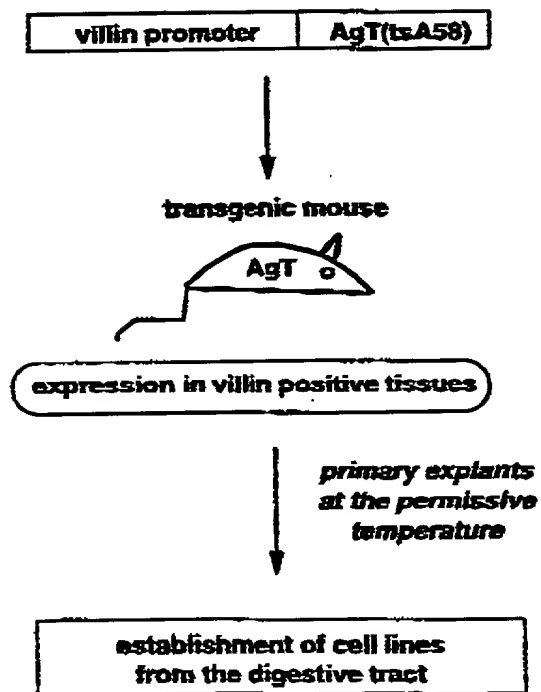


FIGURE 8B

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### Targeting of transactivator gene (repressor form rTA)

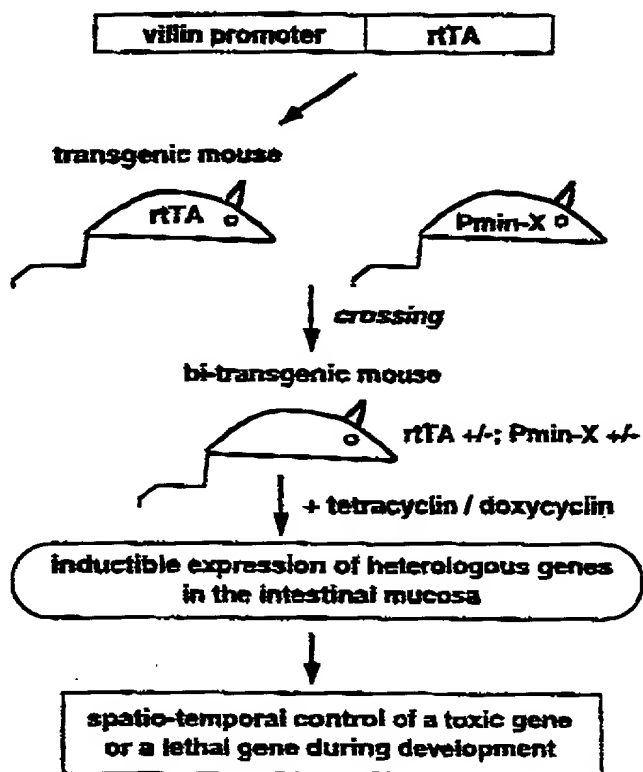


FIGURE 8C